



# U.S. Macro Outlook 2016: The Economy Is in Gear

By Mark Zandi



## Moody's Analytics U.S. Macro Forecast for 2016:

- At this point, the best barometer of the economy's health is jobs. The economy is performing well.
- GDP appears understated by missing a significant amount of output in the information technology sector.
- If productivity growth doesn't pick up soon, GDP will struggle even more.
- The decline in oil prices and investment in the energy industry may provide a boost to productivity. Productivity also should benefit from a more educated and mobile workforce.
- Business formation has meaningfully picked up; animal spirits are coming back to life.

Depending on who you listen to and what economic data you look at, the U.S. economy is either struggling to kick into gear or is already in high gear. ■ For those down on the economy, there is GDP. Real GDP expanded by just over 2% last year, about the same lackluster growth experienced during the current expansion. And growth appears to have tailed off at year's end, tracking closer to 1% in the final quarter. Much of the recent GDP weakness is related to less inventory accumulation, which is a temporary drag, but a widening international trade gap will prove a more persistent impediment to growth given the global economy's ongoing struggles and the strengthening U.S. dollar.

For those upbeat on the economy, there is the job market. The economy is creating lots of all kinds of jobs. Payrolls swelled by 2.7 million last year, on top of 3.1 million in 2014. This is the best consecutive two-year performance since 1998-1999 during the tech stock bubble. There are no bubbles today. Unemployment and underemployment, which includes part-timers who want more hours and those who have stepped out of the workforce but say they want to work, are falling fast at the current pace of job growth. The economy will soon return to full employment.

So which is it: Is the economy performing well or not? In my view, at this point in the expansion the best barometer of the economy's health is jobs. The economy is performing well.

The contraction in oil prices and investment in the energy industry may also provide a boost to productivity.

on the power of that technology, which in the case of info processing equipment is measured in large part by the speed of semiconductors. During the late 1990s technology boom, chip speed was increasing rapidly, resulting in double-digit measured price declines. Real investment thus soared.

Today, measured prices for info processing equipment are actually increasing, according to the BEA. Not because chip technology is no longer advancing, but because the chip makers are less focused on chip speed and more focused on other features of the chips that aren't being captured, such as battery life and the versatility of those chips. Measured real investment is thus expanding slowly, which is cutting into measured GDP.

Capturing the improving power and quality of business software is also difficult, which has become especially important since investment in software has recently surpassed that in info processing equipment.

An even more vexing measurement problem plaguing the GDP numbers may be that posed by the explosive popularity of social media and other digital content. Namely, that due to the introduction of new products, especially of those that are free or nearly so. Snapchat, for example, is all the rage, particularly among young people, and it is free. It is unlikely the BEA is measuring the impact of Snapchat-like new products in its price and GDP estimates.

## UNDERSTATED GDP

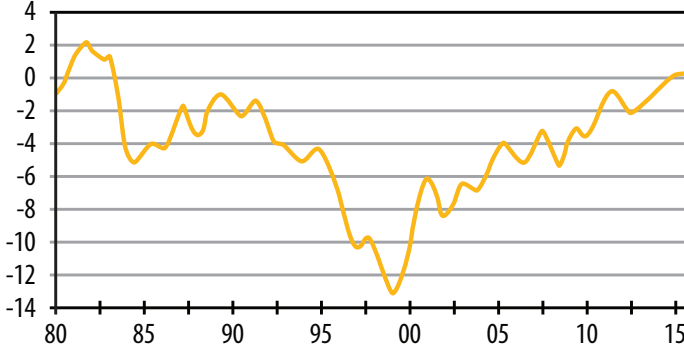
Supporting this perspective is that GDP appears understated. In the Bureau of Economic Analysis' tally of GDP, the agency seems to be missing a significant amount of output in the information technology sector. This measurement problem is getting worse as this part of the economy grows bigger.

This is clearest with regard to business investment in information processing equipment. Real investment is derived by deflating nominal investment by its price. The price depends

**FIGURE 1**

**HAS TECHNOLOGY CHANGE COME TO A STANDSTILL?**

Info processing deflator, % change yr ago, 4-qtr MA



Sources: BEA, Moody's Analytics

The upshot is that inflation has probably been meaningfully weaker and real GDP growth stronger during the recovery than the BEA's data currently suggest. Future revisions to the GDP data will likely bear this out.

**PRODUCTIVITY SLUMP**

The difference between pedestrian GDP growth (even after abstracting from the measurement problems) and strong job growth is evident in slumping productivity. During the current expansion, overall nonfarm business productivity has expanded at an anemic near 1% per annum pace, and an even weaker 0.5% pace in the past several years.

This compares with productivity growth of near 2% per annum on average since World War II, and is the worst productivity performance since the late 1970s. The 1970s were plagued by oil embargos and spiraling energy costs, which made much of the nation's capital stock obsolete. That's clearly not a viable explanation today given the slide in oil prices.

Weak productivity hasn't been much of a concern during this expansion. With so many unemployed and underemployed, the number-one priority has been getting back to full employment. But with full employment now coming into view, if productivity growth doesn't pick up soon, GDP will struggle even more.

GDP growth will be constrained by the sum of the growth in the labor force and productivity. Given demographic trends, labor force growth is set to slow to near 0.5% per annum by the end of the decade. If productivity gains remain stuck at their current 0.5% per annum, then GDP growth will throttle back to a scarily anemic 1% per annum.

This is half the 2% per annum GDP growth that Moody's Analytics and others, including the Congressional Budget Office and Social Security Administration, are assuming through decade's end. The implications of the difference between 2% and 1% per annum growth for living standards, the fiscal outlook, and asset returns and household wealth are dark.

Whether the economy continues to perform well thus critically depends on whether productivity growth soon revives. It should. Various cyclical forces have conspired to weigh on productivity growth in recent years, and they are set to lift.

**FINANCIAL REGULATION**

Especially notable is the impact of the sea change in the regulation of the financial system in the wake of the financial crisis. The

Dodd-Frank regulatory reform has forced enormous changes on the system, including requiring the nation's biggest banks to hold substantially more capital and increase their liquidity. The bank stress-testing process has also fundamentally changed risk management practices in many institutions.

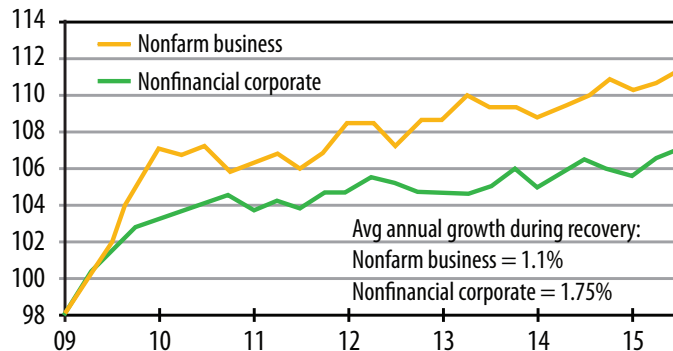
The regulatory changes have put the financial system on much firmer ground, but they have also undermined productivity in the financial sector. Indeed, nonfinancial corporate productivity growth has held up much better than nonfarm business productivity, expanding by 1.75% per annum during the expansion.

The financial sector's adjustment to the new tougher regulatory regime is finally winding down, suggesting that productivity gains should normalize. Our working assumption is that financial sector productivity will soon be expanding at the same pace as productivity in the nonfinancial sector. Through

**FIGURE 2**

**FINANCIAL SECTOR WEIGHS HEAVILY ON PRODUCTIVITY**

Labor productivity, 2009Q2=100



Sources: BLS, Moody's Analytics

Avg annual growth during recovery:  
 Nonfarm business = 1.1%  
 Nonfinancial corporate = 1.75%

the end of the decade, nonfarm business productivity is thus expected to grow at 1.75% per annum.

### ANIMAL SPIRITS

The risk-taking necessary to support the innovation so key to productivity growth had seemed undermined by the crisis. The number of new-business establishments, which had been growing by close to 3% annually during the 1990s, and near 2% in the 2000s prior to the crisis, fell sharply during the downturn. Entrepreneurship was sidelined by the tough economy, lack of credit, and dour sentiment.

Things have changed. Business formation has meaningfully picked up, with the number of new establishments growing by close to 2% again in 2015, and accelerating as the year ended. The increase in establishments is evident across all industries, but is strongest in professional services, education and healthcare, and particularly in the software industry. Entrepreneurship appears to be back.

It will take some time for these new businesses to have an impact on the aggregate economic statistics, including productivity. But this is the clearest sign yet that those animal spirits necessary to drive productivity are finally coming back to life.

### ENERGY BOOM-BUST

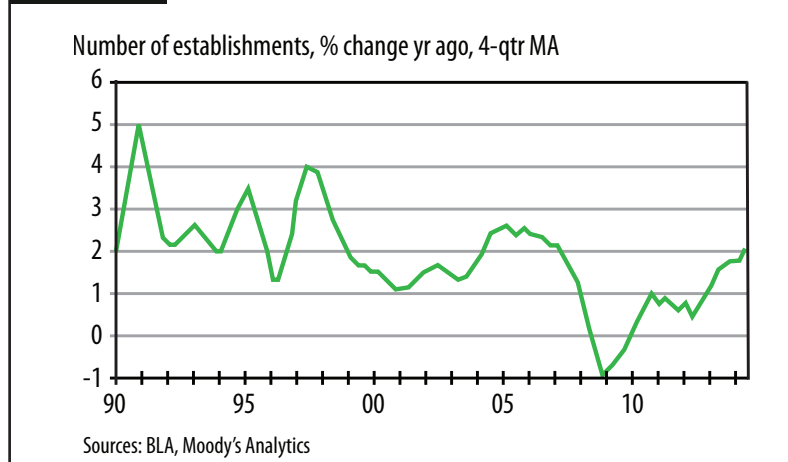
The contraction in oil prices and investment in the energy industry may also provide a boost to productivity. Prior to the bust, the fracking boom had lifted energy investment to its highest share of GDP since the early 1980s. While the increased oil production has enormous economic benefits, including making the economy less sensitive to the energy price shocks that have been a catalyst for nearly every modern recession, it also likely diverted resources away from investment in labor productivity enhancing investment, such as information processing equipment and R&D.

Now that substantially fewer investment dollars are headed to the energy industry, more should go into productivity-enhancing activities. Rising labor costs could further support this shift, as businesses likely had become complacent about using labor more efficiently given the heretofore slack job market and low wages.

### MOBILE AND SMART

Productivity also should benefit from a more educated and mobile workforce. An ironic plus coming out of the recession is a more educated workforce. Many twenty-

**FIGURE 3 ANIMAL SPIRITS REVIVE**

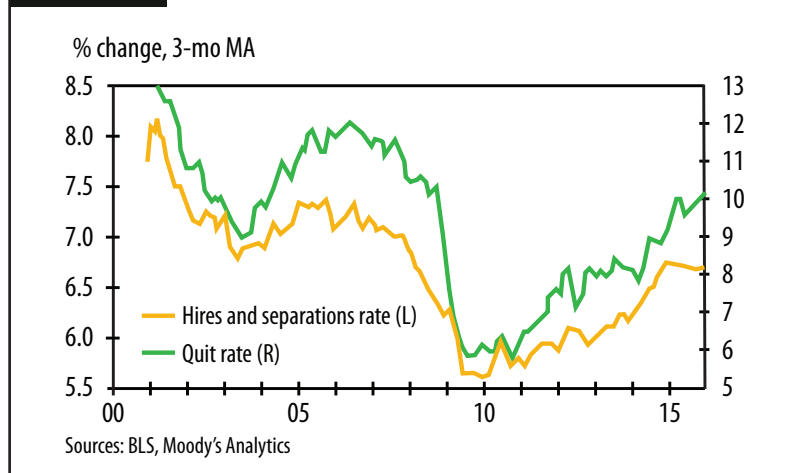


some things who could not find work stayed in school or went back. One-third of the employed now have college degrees; given the previous surge in enrollment, this share will continue to rise quickly.

The workforce is also starting to move again. The U.S. job market has historically been characterized by significant churn, with millions losing, leaving and taking jobs each month. This movement enhances productivity as workers move from jobs they do not care for to jobs that better match their preferences and skills. The willingness and ability of workers to move with ease from job to job is a comparative advantage of the U.S. economy. Mobility, which had declined sharply as a result of the recession, is now picking up, as is evident from the increased frequency of quits and hires.

The coming productivity revival is still very much a forecast, with a considerable amount of uncertainty. Much hinges on whether and when new technologies come to fruition. Nanotechnology, 3D manufacturing, human-genome sequencing,

**FIGURE 4 MORE LIFE IN THE LABOR MARKET**



The upshot is that inflation has probably been meaningfully weaker and real GDP growth stronger during the recovery than the BEA's data currently suggest.

fracking, drones, and driverless vehicles could be game-changing. However, they may not be. Even if they are, some well-respected economists argue that these potential changes pale in comparison with past innovations such as the steam engine, the telephone or indoor plumbing.

Moreover, there are those who believe that the productivity slump is here to stay. They argue that productivity may pick up from its current moribund pace, but not by much, and certainly not enough to get to 2% GDP growth on a sustained basis. The economy is ensnared in so-called secular stagnation.

Perhaps, but this would run counter to a constant of U.S. economic history, namely the ingenuity and creativity of American businesses and workers.

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